REMARKS

Claims 1-20 are all the claims pending in the application. By this Amendment, Applicant adds claims 18-20, which are clearly supported throughout the specification *e.g.*, Figs 1 and 2.

I. Preliminary Matters

Applicant thanks the Examiner for acknowledging Applicant's claim to foreign priority and for indicating receipt of the certified copy of the priority document. Applicant also thanks the Examiner for returning the initialed form PTO/SB/08 submitted with the Information Disclosure Statement filed on March 26, 2004. Applicant further thanks the Examiner for indicating acceptance of the drawing figures filed on March 26, 2004.

II. Prior Art Rejection

Claims 1-17 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,654,969 to Wilhelmsson (hereinafter "Wilhelmsson").[1] Applicant respectfully traverses these grounds of rejection *at least* in view of the following exemplary comments.

In conventional techniques, user devices transmit data in synchronous communication where the data includes real-time data and non real-time data. Real-time data forms a peripheral image that includes a number of data sets processed by various user devices. Each user device may process only a portion of the peripheral image *i.e.*, only some data sets, in each cycle. However, all of the data of the peripheral image is exchanged in each communication cycle regardless of whether all of the data sets have been updated. Since some of the data sets are not updated/processed, such transmissions are wasteful and inefficient.

[1] Cited by the Applicant in the Information Disclosure Statement filed on March 26, 2004.

In an exemplary, non-limiting embodiment, however, only updated data sets of the peripheral image are transmitted in each communication cycle. That is, in an exemplary, non-limiting embodiment, the transmission cycle is divided into a partial cycle for planning real-time communication and another partial cycle for unplanned non real-time communication. This division between the two parts of the cycle is dynamically programmable as a function of the cycle number. For example, it may be known that only data sets A and B are processed in first cycle in device A. Based on the foregoing, one would know that the real time partial cycle must be adequate to transmit data sets A and B but not data sets C, D, and E, for example. In short, based on the cycle number, the length of the real-time part of the cycle is dynamically determined *e.g.*, Figs 2 and 3.

It will be appreciated that the foregoing remarks relate to the invention in a general sense, the remarks are not necessarily limitative of any claims and are intended only to help the Examiner better understand the distinguishing aspects of the claim mentioned further below.

Independent claim 1 *inter alia* recites: "determining a cycle number of a particular transmission cycle…wherein the transmission sequence is composed of one or more partial sequences, the composition of which depends on the cycle number determined for the particular transmission cycle." The Examiner contends that the clock signal of Wilhelmsson and transmission of video data as disclosed in Wilhelmsson somehow meets the cycle number and determining of the composition of the transmission sequence based on the cycle number (*see* page 2 of the Office Action). Applicant respectfully disagrees. Applicant respectfully submits that Wilhelmsson fails to disclose or even remotely suggest that the composition of the transmission sequence of the real-time data will depend on the cycle number and that the cycle number is determined.

To be an "anticipation" rejection under 35 U.S.C. § 102, the reference must teach every element and recitation of the Applicant's claims. Rejections under 35 U.S.C. § 102 are proper only when the claimed subject matter is identically disclosed or described in the prior art. Thus, the reference must clearly and unequivocally disclose every element and recitation of the claimed invention. MPEP § 2131.

Wilhelmsson discloses in a communications network, first information items are transmitted synchronously and second information items asynchronously. The second information items are overlaid on the synchronously transmitted first information items. A bandwidth accessible on transmission can be variably distributed between the first and second information items and, with the desired variable distribution, transmitting and receiving units become synchronized by synchronization information which is transmitted via a channel established for asynchronous transmission between the transmitting and receiving units. Bandwidths which are not used for speech and image communication will be accessible for the common asynchronous LAN data communication. (*see* Abstract and col. 2, lines 25 to 65).

Specifically, Wilhelmsson discloses a frame which includes C-INFO section (alleged real-time data) containing circuit-switched channels D channel, B channel and C channel and the P-INFO section (alleged non real-time data) containing one P channel. In the D channel, the bearer service itself is provided as one channel for 64 kbit/s. The B channel can occur in two B1 and B2 channels corresponding to basic access in ISDN and can be used for speech and/or data per node. In this case, only the bearer service itself is provided as one channel for 64 kbit/s. The D channel can be used as bearer service for video or fast data transmission. The P channel is used for common asynchronous data communications (packet switching), (Fig. 9; col. 9, lines 18 to 28).

In Wilhelmsson, all units connected to the ring can listen in and receive when a unit is transmitting. In the ring network, it is only one station, the next in the ring, which can pick up the transmission, the frame travels around in the ring due to the fact that the stations, in order, copy bit by bit of the frame from the input and at the output. When the frame comes back after a turn around the ring, it is removed by the originator. If these is still time, the station can send another frame. One of the stations or nodes is allocated the role of active monitor. It transmits with a crystal-controlled clock signal (alleges cycle number) as reference. The other stations use a locked oscillator for synchronizing reception and transmission with the received signal. When the bit stream has passed around the ring and is received by the receiver of the active monitor which is locked to the received signal, the received bit stream is no longer in phase with the crystal-controlled clock. To compensate for differences, an elastic buffer is used which clocks the received data with the locked clock and transmits data with the crystal-controlled clock (Fig. 9; col. 9, line 30 to Fig. 10, line 7).

In Wilhelmsson, an asynchronous frame can be divided up into two synchronous frames following one another and inserted into its P field. The C field part of the synchronous frames contains fields for synchronization of speech and image information. The number of synchronous frames which return for dividing up is determined by the length of the asynchronous frame and the length of the P field. The designations in the asynchronous frame specify fields with different significance and length. The asynchronous frame can begin and end anywhere in the P field (Fig. 10; col. 10, lines 8 to 42).

As is visible, Wilhelmsson only discloses a clock signal, which is used to time transmission and reception of data and not to determine composition of the frame. Furthermore, Wilhelmsson discloses that the number of synchronous frames are determined by length of

asynchronous frame and the length of the P field. Wilhelmsson fails to disclose or even remotely suggest determining a cycle number, which is not determined but is simply a clock signal. Furthermore, Wilhelmsson fails to disclose or suggest determining how much of the real-time data packets and which ones to transmit based on the cycle number. In other words, Wilhelmsson fails to disclose or suggest that the partition between the real-time data and non real-time data is dynamically based on the clock signal (alleged cycle number).

Therefore, "determining a cycle number of a particular transmission cycle…wherein the transmission sequence is composed of one or more partial sequences, the composition of which depends on the cycle number determined for the particular transmission cycle," as set forth in claim 1 is not disclosed by Wilhelmsson. For at least these exemplary reasons, claim 1 is patentably distinguishable from Wilhelmsson. Claims 2-5 are patentable by virtue of their dependency on claim 1.

In addition, dependent claim 5 recites: "wherein the transmission sequence is generated from a dynamic transmission list comprising one or more partial sequences and one or more conditional control commands, wherein a corresponding condition for each of the conditional control commands is based on the cycle number of the particular transmission cycle." The Examiner contends that col. 10, lines 17 to 32 of Wilhelmsson disclose there unique features of claim 5 (*see* page 3 of the Office Action). Applicant respectfully disagrees.

Col. 10, lines 14 to 32 of Wilhelmsson recite:

> In FIG. 9, CSD specifies the start delimiter for a synchronous frame. C-INFO specifies circuit-switched information, with speech, video, data and signalling. P-INFO shows common packet-switched information, data only. D1 is a D channel for signalling node 1, 64 kbit/s, 1 octet. B11 specifies a B1 channel for speech or data node 1, 64 kbit/s, 1 octet. B21 specifies a B2 channel for speech or data node 1, 64 kbit/s, 1 octet. C1 specifies a circuit-switched channel for video node 1, 128 kbit/s, 2 octets. B12 specifies a B1 channel for speech or data node 2, 64 kbit/s, 1 octet,

> C2 constitutes a circuit-switched channel for video node 2, 384 kbit/s, 6 octets. SD is a start delimiter for asynchronous frames. AC is an access control unit and FC a frame control unit or type of frame. DA specifies a destination address and SA a source address. LLC is a protocol for upper data link level and FCS is an error check of 4 octets. The end delimiter of 1 octet is indicated by ED and the frame status by FS, 1 octet. FILL is the padding consisting of, for example, only zeros, to the next SD.

As is visible from the above-quoted passage of Wilhelmsson, SD is simply a start delimiter for asynchronous frame. Wilhelmsson does not disclose or even remotely suggests having a dynamic transmission list that includes commands and partial sequences, and where condition in each command is based on the cycle number. For at least these additional exemplary reasons, claim 5 is patentably distinguishable from Wilhelmsson.

Independent claims 6, 10, and 14 recite features similar to, although not necessarily coextensive with, the features argued above with respect to claim 1. Therefore, arguments presented with respect to claim 1 are respectfully submitted to apply with equal force here. For at least substantially analogous exemplary reasons, therefore, independent claims 6, 10, and 14 are patentably distinguishable from Wilhelmsson. Claims 7-9, 11-13, and 15-17 are patentable at least by virtue of their dependency on claims 6, 10, and 14, respectively.

III. New Claims

In order to provide more varied protection, Applicant adds claims 18-20, which are patentable by virtue of their dependency and for additional features set forth therein.

IV. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. **If any points remain in issue, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below to set up an interview**.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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